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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,106	10/19/2001	Nitin Jain	FOUND-0008	6774

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EXAMINER

ARTHUR JEANGLAUDE, GERTRUDE

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,106

Applicant(s)

JAIN ET AL.

Examiner

Gertrude Arthur-Jeanglaude

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-24,31-37 and 40 is/are allowed.
- 6) ☒ Claim(s) 12-17,25-30,38,39 and 41-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 12-17, 25-30, 38-39, 41-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Shannon (U.S. Patent No. 6,233,618).

As to claims 12, 25, 38, 39, Shannon discloses a method and apparatus and a program storage device readable by a machine embodying a program of instructions executable by the machine to perform a method for handling a control message, the method comprising: updating (matching) a source-group data structure using information from the control message, the source-group data structure containing data regarding a multicast group; and adding (associating) an outgoing port index (outgoing packet) to the source group data structure, the outgoing port index identifying a port that received the control message (See col. 13, lines 1-51).

As to claims 41, 16, 29, 46, Shannon discloses a method and apparatus for handling a control message, the method comprising: deriving a shared source lookup key from multicast group information in the control message; searching a forwarding

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data structure for a forwarding entry having a shared source lookup key matching the shared source lookup key; and if a forwarding entry having a shared source lookup key matching the destination shared source lookup key is found, revising an associated outgoing port in the forwarding entry to match an incoming port for the control message (See col. 13, lines 52-59; col. 14, lines 1-25, 49-60).

As to claims 13, 17, 26, 43, 30, 48, Shannon discloses the source group data structure is a source group table or session table (table 1; see col. 13, lines 52-59).

As to claims 14, 27, Shannon discloses creating an entry in an outgoing port lookup table, the entry associating the outgoing port index to the port that received the control message (See col. 13, lines 54-67-col. 14, lines 1-25).

As to claims 15, 28, 49, Shannon discloses searching in a forwarding table for a forwarding entry having a destination hardware address matching a destination hardware address for a multicast group indicated by the control message; and updating the forwarding entry in the forwarding table if a destination hardware address matching a destination hardware address for the multicast group is found (See col. 13, lines 54-67; col. 14, lines 26-59).

As to claim 42, Shannon discloses the shared source lookup key is a destination media access control (MAC) address for the control message (See col. 13, lines 52-55).

As to claim 47, Shannon discloses the explicit source lookup key is a combination of a multicast source network address, a destination network address, an incoming port for the control message, and a protocol type (See col. 13, lines 52-55).

As to claims 44, Shannon discloses the forwarding data structure is a forwarding table (See col. 14, lines 49-60).

As to claims 45, 50, Shannon discloses extracting multicast group information from the control message; updating a source group data structure with the multicast group information; and adding an outgoing port index to the source group table, the outgoing port index identifying a port that received the control message (see col. 12, lines 37-52; col. 13, lines 1-51).

Allowable Subject Matter

Claims 18-24, 31-37, 40 are allowed.

The prior art of record fails to disclose a method or program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for handling a control message comprising determining if the control message establishes shared source distribution trees or explicit source distribution trees; updating a source group data structure using information from the control message, the source group data structure containing data regarding a multicast group, if the control message establishes shared source distribution trees; adding an outgoing port index to the source group table, the outgoing port index identifying a port that received the control message, if the control message establishes shared source distribution trees; deriving an explicit source lookup key from the control message if the control message establishes explicit source distribution trees; retrieving an outgoing port index associated with an entry in a session data structure, the entry corresponding to

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the explicit source lookup key, if the control message establishes explicit source distribution trees.

Response to Arguments

Applicant's arguments with respect to claims 12-50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Madruaga et al. (U.S. Pub No. 20010034793)

Rothschild et al. (U.S. 6,226,686)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (571) 272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wiley David can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GAJ

GAJ

July 16, 2005

Gertrude A. Jeanglaude
GERTRUDE A. JEANGLAUDE
PRIMARY EXAMINER